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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,569	02/07/2001	Thomas O'Neill	0007056-0163/P5640/RSB	4214

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WAGNER, MURABITO & HAO LLP
Two North Market Street
Third Floor
San Jose,, CA 95113

EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,569

Applicant(s)

O'NEILL, THOMAS

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Drawings

1. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Dixit.

Dixit discloses a method of intraframe transmission (Dixit: column 6, lines 22-37) comprising: dividing a digital image into a plurality of regions (Dixit: column 7, lines 50-60); selecting a first region wherein said first region is encoded with interframe compression (Dixit: column 8, lines 13-15); and transmitting said regions (Dixit: column 8, lines 54-65), as claim 1.

Regarding claim 2, Dixit discloses that regions consist of a non-overlapping rectangular group of pixels (Dixit: column 8, lines 1-5), as in the claim.

Regarding claim 3, Dixit discloses that the regions comprise strips of pixels (Dixit: column 8, lines 5-10), as in the claim.

Regarding claim 4, Dixit discloses that the regions comprise a plurality of non-contiguous pixel groups (Dixit: column 8, lines 9-11: "randomly selected blocks"), as in the claim.

Regarding claim 5, Dixit discloses that the selecting comprises determining one or more first groups of pixels wherein intraframe compression of said first groups results in better compression than interframe compression (Dixit: column 6, lines 30-50); and determining one or more second groups were not encoded without interframe compression within a number of transmission (Dixit: column 8, lines 25-55), as in the claim.

Regarding claim 6, Dixit discloses assigning a first number to a first pixel group; and selecting said first pixel group to be included in said first region for a transmission wherein said transmission is associated with a second number and said second number modulo a third number is equal to a said first number wherein said third number is a total number of regions (Dixit: column 8, lines 25-55), as in the claim.

Dixit discloses an interframe transmission unit (Dixit: column 6, lines 22-37) comprising: a dividing unit for dividing a digital image into a plurality of regions (Dixit: column 7, lines 50-60); a selection unit for selecting a first region wherein said first region is encoded with interframe compression (Dixit: column 8, lines 13-15); and a transmitter configured to transmit said regions (Dixit: column 8, lines 54-65), as claim 7.

Regarding claim 8, Dixit discloses that regions consist of a non-overlapping rectangular group of pixels (Dixit: column 8, lines 1-5), as in the claim.

Regarding claim 9, Dixit discloses that the regions comprise strips of pixels (Dixit: column 8, lines 5-10), as in the claim.

Regarding claim 10, Dixit discloses that the regions comprise a plurality of non-contiguous pixel groups (Dixit: column 8, lines 9-11: "randomly selected blocks"), as in the claim.

Regarding claim 11, Dixit discloses that the selecting comprises determining one or more first groups of pixels wherein intraframe compression of said first groups results in better compression than interframe compression (Dixit: column 6, lines 30-50); and determining one or more second groups were not encoded without interframe compression within a number of transmission (Dixit: column 8, lines 25-55), as in the claim.

Regarding claim 12, Dixit discloses assigning a first number to a first pixel group; and selecting said first pixel group to be included in said first region for a transmission wherein said transmission is associated with a second number and said second number modulo a third number is equal to a said first number wherein said third number is a total number of regions (Dixit: column 8, lines 25-55), as in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dixit in view of Krishnamurthy et al., (hereinafter referred to as "Krishnamurthy").

Dixit discloses a method of intraframe transmission (Dixit: column 6, lines 22-37) comprising: dividing a digital image into a plurality of regions (Dixit: column 7, lines 50-60); selecting a first region wherein said first region is encoded with interframe compression (Dixit: column 8, lines 13-15); and transmitting said regions (Dixit: column 8, lines 54-65), as claim 13. However, Dixit fails to disclose implementing the method as a computer program product comprising computer readable codes corresponding to the steps of the method. Krishnamurthy discloses a region based refreshing method for video coding (Krishnamurthy: column 3, lines 3, lines 10-61) that is implemented as computer readable codes on a computer program product in order to have said method executable by a general-purpose computer (Krishnamurthy: column 4, lines 5-24). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to implement the Dixit method as computer readable codes on computer program product as shown by Krishnamurthy in order to have the Dixit method executable by a general purpose computer. The Dixit method, now implemented as computer readable codes on computer program product as shown by Krishnamurthy, has all of the features of claim 13.

Regarding claim 14, the Dixit method, now implemented as computer readable codes on computer program product as shown by Krishnamurthy, discloses that regions consist of a non-overlapping rectangular group of pixels (Dixit: column 8, lines 1-5), as in the claim.

Regarding claim 15, the Dixit method, now implemented as computer readable codes on computer program product as shown by Krishnamurthy, discloses that the regions comprise strips of pixels (Dixit: column 8, lines 5-10), as in the claim.

Regarding claim 16, the Dixit method, now implemented as computer readable codes on computer program product as shown by Krishnamurthy, discloses that the regions comprise a plurality of non-contiguous pixel groups (Dixit: column 8, lines 9-11: "randomly selected blocks"), as in the claim.

Regarding claim 17, the Dixit method, now implemented as computer readable codes on computer program product as shown by Krishnamurthy, discloses that the selecting comprises determining one or more first groups of pixels wherein intraframe compression of said first groups results in better compression than interframe compression (Dixit: column 6, lines 30-50); and determining one or more second groups were not encoded without interframe compression within a number of transmission (Dixit: column 8, lines 25-55), as in the claim.

Regarding claim 18, the Dixit method, now implemented as computer readable codes on computer program product as shown by Krishnamurthy, discloses assigning a first number to a first pixel group; and selecting said first pixel group to be included in said first region for a transmission wherein said transmission is associated with a second number and said second number modulo a third number is equal to a said first number wherein said third number is a total number of regions (Dixit: column 8, lines 25-55), as in the claim.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bhargava discloses a system for tile coding of moving images.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-6606 for regular communications and (703)-308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-4700.

Andy S. Rao
Primary Examiner
Art Unit 2613

ANDY RAO
PRIMARY EXAMINER



asr
August 8, 2003